

foamy cells and sclerotic areas. Numerous thickened and hyalinized blood vessels were evident throughout the tumor tissue. No mitotic figure was observed. Neoplastic cells were diffusely immunoreactive for S100 protein, focally positive for GFAP, and negative for α -smooth muscle actin, desmin, CD34, CD117 and AE1/AE3 cytokeratins. Ki-67 proliferation index was 3%. Histological diagnosis was of cellular schwannoma. *Discussion and Conclusion:* Schwannomas are benign soft tissue tumors that originate from the peripheral nerve sheath. Their most common sites are head and neck region and extremities, whereas the retroperitoneal location is rare, accounting for 0.3 to 3.2% of all schwannomas (2). MRI with gadolinium enhancement has been advocated as superior to computed tomography in highlighting cystic degeneration, defining margins and identifying the point of origin from the nerve (1). Retrospective evaluation of MRI in our case allowed to confirm this assessment and to identify the possible origin of the lesion from the genitofemoral nerve. Definitive diagnosis can only be made by histopathological examination with immunohistochemical confirmation (1), but preoperative fine needle aspiration diagnosis may be performed (2). According to a recent report, retroperitoneal schwannoma often occurs in middle-aged women, exhibits cellular subtype features and extensively expresses GFAP (3). Except for the classification in the cellular subtype, our case does not confirm such observation, showing only limited areas of GFAP positivity and occurring in a young adult male patient.

- 1 Choudry HA, Nikfarjam M, Liang JJ, Kimchi ET, Conter R, Guani NJ and Staveley O'Carroll KF: Diagnosis and management of retroperitoneal ancient schwannomas. *W J Surg Oncol* 7: 12, 2009.
- 2 Kudo T, Kawakami H, Kuwatani M, Ehira N, Yamato H, Eto K, Kubota K and Asaka M: Three cases of retroperitoneal schwannoma diagnosed by EUS-FNA. *W J Gastroenterol* 17: 3459-3464, 2011.
- 3 Hirose T, Ishizawa K, Sakaki M and Fujii Y: Retroperitoneal schwannoma is characterized by a high incidence of cellular type and GFAP-immunoreactivity. *Pathol Int* 62: 456462, 2012.

96

TESTING THE AGILE DATABASE FOR AN EXTERNAL VALIDATION OF A NOMOGRAM TO PREDICT MALIGNANCY OR AGGRESSIVENESS OF RENAL MASSES, BASED ON R.E.N.A.L. SCORE

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Introduction and Aim: Actually only a few preoperative systems are available to predict malignancy or aggressiveness of a renal mass, and all of them suffer from a low predictive accuracy. Recently, Kutikov *et al.* (1) generated a nomogram based on R.E.N.A.L. score, that showed a predictive accuracy higher than 70%. The aim of this study was to perform an external validation of this predictive tool on a cohort of patients submitted to partial nephrectomy. *Methods:* Agile is a collaborative group of Italian young (<40 yrs) urologists with a specific interest in mini-invasive surgery. Since 2011 the group perspectiveally shared and compiled a database to collect the data of all the patients undergoing open, laparoscopic or robotic partial nephrectomy. Among the data, also R.E.N.A.L. score has been calculated in its attributes by an urologist blinded of the final pathology. After the centralization of database, the nomogram proposed by Kutikov has been applied to each case, using the online calculator available at www.cancernomograms.com, to calculate the predicted probability of malignancy and aggressiveness. A logistic regression model has been used to estimate the correlation of each of the parameters included into the nomogram and the final pathology. *Results:* The data of 294 patients have been collected (185 male, 109 female, age 63±12 yrs), submitted to open (197 patients), laparoscopic (28) or robotic (69) partial nephrectomy. Histology was benign in 60 cases (21.6%), malignant in 234 (79.4%); among malignant cases, was aggressive - high grade - in 34 (17.9%), not aggressive in 144 (82.1%). Mean total R.E.N.A.L. score was 5.8±1.6. The Tables present the results of statistical analysis that estimate the correlation of the parameters included into the nomogram with malignancy (Table I) or aggressiveness (Table II) at final pathology (in bold correlation with statistical significance).

Table I. *Statistical correlation between characteristics and malignant histology.*

	<i>p</i>	RR (95% CI)
Age (yrs)	0.364	1.011 (0.988-1.034)
Male gender	0.010	2.138 (1.203-3.798)
Nephrometry sum	0.217	1.129 (0.931-1.368)
R attribute	0.303	
1	referent	
2	0.544	1.252 (0.606-2.588)
3	0.175	0.347 (0.075-1.603)
E attribute	0.376	
1	referent	
2	0.326	1.371 (0.731-2.572)
3	0.265	2.360 (0.521-10.689)
N attribute	0.322	
1	referent	
2	0.685	1.262 (0.410-3.889)
3	0.141	2.524 (0.737-8.644)
L attribute	0.049	
1	referent	
2	0.021	2.471 (1.145-5.332)
3	0.924	0.968 (0.498-1.881)
involvement of renal sinus		
no	referent	
yes	0.347	0.59 (0.201-1.758)

Table II. *Statistical correlation between characteristics and high grade RCC.*

	<i>p</i>	RR (95% CI)
Age (yrs)	0.364	1.011 (0.988-1.034)
Male gender	0.010	2.138 (1.203-3.798)
Nephrometry sum	0.217	1.129 (0.931-1.368)
R attribute	0.303	
1	referent	
2	0.544	1.252 (0.606-2.588)
3	0.175	0.347 (0.075-1.603)
E attribute	0.376	
1	referent	
2	0.326	1.371 (0.731-2.572)
3	0.265	2.360 (0.521-10.689)
N attribute	0.322	
1	referent	
2	0.685	1.262 (0.410-3.889)
3	0.141	2.524 (0.737-8.644)
L attribute	0.049	
1	referent	
2	0.021	2.471 (1.145-5.332)
3	0.924	0.968 (0.498-1.881)
Involvement of renal sinus		
no	referent	
yes	0.347	0.59 (0.201-1.758)

The malignancy rate predicted by the nomogram for benign and malignant tumors was 79.2% and 80.3%, respectively (AUC 0.541, $p=0.326$); the predicted aggressiveness rate for non aggressive and aggressive renal cancer was 30.9% and 38.6%, respectively (AUC 0.660, $p=0.004$). *Conclusion:* Conversely to the cohort in which the nomogram has been generated – that included also advanced or metastatic tumors – the present study aims at validating the nomogram on a cohort of cases submitted to partial nephrectomy, in which the prediction of malignancy or aggressiveness could be more clinically important because these masses could be amenable of ablation or observation. The nomogram showed a poor predictive ability for malignancy, whereas a discrete accuracy for aggressiveness, mainly due to a strong relationship with the diameter of the tumor. Since the external validation failed, the nomogram should be re-calibrated on a cohort of small renal masses.

1 Kutikov A, Smaldone MC, Egleston BL *et al*: Anatomic features of enhancing renal masses predict malignant and high-grade pathology: a preoperative nomogram using the RENAL Nephrometry score. *Eur Urol* 60(2): 241-248, 2011.

97

COMPLICATION RATE AFTER TURP AND HIFU

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Introduction: To evaluate whether splitting TURP and Hifu in two sessions can reduce complication rate in patients with localized prostate cancer. *Patients and Methods:* From November 2004 to November 2012, 118 patients affected by localized prostate cancer underwent HIFU following TURP. In 39 patients both procedures were performed in the same session (Group A); in 79 patients HIFU was delayed (Group B). Follow up included serial PSA measurements and prostate biopsies 6 months after the treatment in all patients. Biochemical recurrence was defined as PSA nadir + 2 ng/ml (ASTRO 2005 criteria). We have evaluated complication rate in the Group A and B. *Results:* The mean age, PSA and prostate volume were 78.9 years, 8.7 ng/ml and 31 cc, respectively. Mean procedure time was 127 minutes and mean hospitalization was 3.8 days. Complication rate was not associated with clinical stage (T1 vs. T2) ($p<0.6$), Gleason score ($p<0.5$), age ($p<0.2$), prostate volume ($p<0.06$), PSA ($p<0.9$). Complications rate was lower when